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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,678	01/18/2002	James W. Moore	5557.P007	5448

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EXAMINER	
TRAIL, ALLYSON NEEL	

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/052,678	MOORE ET AL.	
	Examiner	Art Unit	
	Allyson N. Trail	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-28 and 46-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26,46,47,50-55 and 58-61* is/are rejected.

7)☒ Claim(s) *27,28,48,49,56 and 57* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Amendment

1. Receipt is acknowledged of the Amendment filed September 19, 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 18, 46, 51-54, and 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerety et al (6,560,741) in view of Bridgelall et al (5,525,788).

Gerety et al teaches capturing multiple two-dimensional images with a CMOS contact image sensor and processing the multiple images to identify and read a code, which is affixed to an object.

Specifically, Gerety et al's method includes capturing multiple two-dimensional images of a two-dimensional printed code using a two-dimensional image sensor. Each of the two-dimensional images captured represents only a portion of the two-dimensional printed code, and the multiple images are stitched together into a single image representative of the entire two-dimensional printed code. Multiple overlapping "snapshot" images are captured via the two-dimensional image sensor as the two-dimensional printed code is swept by. The image-to-image overlap (boundary correlation) is analyzed in software and the images of "fused" to produce a single, coherent image. This technique has been employed previously with "hand scanner"

devices such as the "Logitech ScanMan." In order to stitch multiple two-dimensional images together each image must be stored in the memory 530. Also disclosed by Gerety et al is a display unit 430. (See columns 12 and 13).

Gerety et al fails to teach processing a single received trigger signal in response to a location of a component in an automated identification system.

In regards to claims 18, 46, 51, 53, 54, and 59, Bridgelall et al teaches a system for determining an orientation of a bar code symbol using an imaging camera. Bridgelall et al additionally teaches in response to locating the symbol, orienting the reading device toward the symbol for reading and decoding. Bridgelall et al teaches processing a single received trigger signal communicated from a triggering device in response to a location of a component in an automated identification system. (Abstract).

Bridgelall et al teaches a sensor for sensing the presence of an article at a predetermined location by using an imaging camera, which records an image of the article and an image decoder, which examines the recorded image to determine a location of a bar code symbol on the article and outputs coordinate location signals reflecting the location of the bar code symbol. (Col. 4, lines 34-65).

In view of Bridgelall et al's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to combine Bridgelall et al's method of reading a bar code in response to a trigger signal sent from an object detector detecting a location of a bar code with Gerety et al's method of decoding two-dimensional codes. One would be motivated to locate the bar code before reading the bar code, as is taught by Bridgelall in order to obtain an accurate decoding of the bar

codes for example if the bar code is moving along a conveyor belt or multiple bar codes are being read that are located in different location on the object to which they are attached.

4. Claims 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerety et al (6,560,741) in view of Bridgelall et al (6,502,750) and in further view of Kennedy et al (5,515,962).

Gerety et al's teachings in combination with the teachings of Bridgelall are discussed above.

The combination however fails to teach adjusting the parameters of the conveyor belt, which include delays and speed.

Kennedy et al teaches the following in regards to claims 19-24:

"The conveyor belt 40 is driven via the DC motor 22, the speed of which may be controlled as by a programmable logic controller (PLC) 52 which provides a control panel 54 for allowing a user to interface therewith. The DC motor 22 provides a torque output which is reduced at a ratio of 30:1 by the reducer 24, which is typically a Dayton reducer. The reducer 24 provides the reduced torque output at the input sprocket 26 which is linked to the idler sprocket 28 and the output sprocket 32 by the drive chain 34. The tension in the drive chain 34 is adjusted by the chain tensioner 30, which typically may be a Rosta tensioner. The output sprocket 32 is coupled directly to the drive end spindle 36 so as to drive the conveyor belt 40. It should be noted that the control panel 54 allows a user to adjust the conveying speed of the conveyor belt 40." (Col. 4,lines 43-57).

In view of Kennedy et al's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ the user-specified intervals taught by Kennedy et al to the teachings of Gerety et al in combination with Bridgelall et al. One would be motivated to do so in order to eliminate the problem of packages traveling along a conveyor belt too quickly and not being able to be clearly decoded. Both the user-specified intervals help to avoid this problem.

5. Claims 25, 26, 47, 50, 55, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerety et al (6,560,741) in combination with Bridgelall et al (6,502,750) and in further view of Zlotnick et al (5,737,438).

Gerety et al's teachings in combination with the teachings of Bridgelall et al are discussed above.

The combination however fails to teach using two or more sources configured to capture the multiple images.

Sawaki et al teaches the following in regards to claim 25:

"There is also an advantage that a user can choose between a scanner and a camera depending on the images to be obtained." (Col. 25,lines 60-62).

In view of Swaki et al's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to have two separate image capturing devices. Having two separate image capturing devices allows for a better chance of capturing the barcode label as it travels down the conveyor belt. One would be motivated to choose and switch between two separate image capturing devices to ensure the most accurate reading of the barcode is achieved.

Allowable Subject Matter

6. Claims 27, 28, 48, 49, 56, and 57 are objected to as being dependent upon a rejected base claim (claims 56 and 57 are also objected to above), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's for allowance: Although Bridgelall et al in combination with Gerety et al teach a method of capturing multiple images of packages moving along a conveyer belt and combining the images in order to decode the barcode and the combination of Bridgelall et al, Gerety et al, and Sawaki et al teach a user-specifying which image capturing device to use, the above identified prior art of record, taken alone, or in combination with any other prior art, fails to teach or fairly suggest the specific features of the present claimed invention, such instructions to switch from one source to another source in response to an occurrence of user-specified criteria, wherein the user-specified data criteria includes an image-capture-quantity parameter and a time parameter. Moreover, one of ordinary skill in the art would not have been motivated to come to the claimed invention.

Response to Arguments

7. Applicant's remarks filed September 19, 2005, with respect to the rejection(s)of claim(s) 18-26, 47, 50-55, and 58-61 have been fully considered but they are not persuasive. Although Bridgelall et al uses a laser to scan the bar code for reading purposes, the Bridgelall et al reference simply teaches the concept of processing a single received trigger signal communicated from a triggering device in response to a

location of a component in an automated identification system. It is clear that this automated identification system may be coupled with any type of image capturing or bar code reading apparatus. Additionally, although Bridgelall et al in view of Gerety et al is equivalent to Gerety et al in view of Bridgelall et al, the above rejection was rewritten for purposes of clarity. It is obvious that Bridgelall et al teaches the motivation of locating the bar code before reading it, therefore Bridgelall et al is combinable with the teachings of Gerety et al.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allyson N. Trail whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**allyson.trail@uspto.gov**].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Allyson N. Trail
Patent Examiner
Art Unit 2876
December 5, 2005

KARL D. FRECH
PRIMARY EXAMINER